

Ser. No.: 10/775,698

Atty. Docket No.: 6579-0038-1

Art Unit: 3724

Reply to Office Action dated May 1, 2006

IN THE CLAIMS

A presentation of all of the pending claims with their current status indicated follows.

1. (Original) A method for making a microedged shaving surface comprising the steps of:

- providing a substrate;
- applying a polymer layer onto at least one surface of said substrate;
- depositing an edge layer of material over said polymer layer, said edge layer having hardness sufficient to support a cutting edge;
- coating said at least one surface with a photoresist material positioned over said edge layer;
- curing said photoresist material to render areal portions thereof substantially impervious to removal by etching;
- etching said photoresist materials so that the areas adjacent to said substantially impervious areal portions create a plurality of re-entrant profiles;
- stripping any remaining photoresist material;
- etching said edge layer to expose said discrete shaving elements, each defining a peripheral edge having a sharpness sufficient to cut into hair; and
- exposing said substrate around said discrete shaving elements so that said cutting edges are offset from said at least one surface of said substrate.

2. (Original) A method as defined by claim 1, wherein said step of depositing an edge layer of material includes depositing a layer of tungsten.

3. (Original) A method as defined by claim 2 wherein said layer of tungsten is approximately 800 angstroms thick.

4. (Original) A method as defined by claim 2 wherein said step of depositing an edge layer of material includes depositing a layer of copper over said layer of tungsten.

5. (Original) A method as defined by claim 1 wherein after said step of curing said photoresist material, the method includes the step of plating said substrate with nickel.

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6. (Original) A method as defined by claim 1 wherein said step of curing includes exposing said photoresist material to ultraviolet radiation and processing said photoresist material to create a reentrant angled photoresist profile.

7. (Original) A method as defined by claim 4 wherein said step of etching said edge layer includes wet etching said copper layer with a nitric acid solution and reactive ion etching said tungsten layer.

8. (Original) A method as defined by claim 7 wherein after said step of curing said photoresist material, the method includes the further step:

of plating said substrate with nickel, and wherein after said step of reactive ion etching said tungsten layer, said method includes the further step of wet etching said nickel to create a tungsten extension.

9. (Original) A method as defined by claim 1 wherein said substrate is formed from a polymeric material.

10. (Original) A method as defined by claim 9 wherein said polymeric material is polyimide.

11. (Original) A microedged shaving surface comprising:

a substrate defining a surface having a plurality of micro-protrusions projecting outwardly therefrom; and

a plurality of microedged shaving elements, each being carried by one of said micro protrusions, each shaving element defining a peripheral edge having sharpness sufficient to cut into human hair.

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12. (Original) A microedged-shaving surface as defined by claim 11 wherein:
each of said protrusions is frusto-conically shaped defining an upper surface upon which one of said microedged shaving elements is supported; and wherein
each of said microedged shaving elements is approximately circular with said peripheral edge extending past said upper surface but not engaging the peripheral edge of any other of said plurality of microedged shaving elements.
13. (Original) A microedged-shaving surface as defined by claim 11 wherein said plurality of protrusions are positioned in an array.
14. (Original) A microedged shaving surface as defined by claim 13 wherein said array comprises a plurality of rows wherein each protrusion is spaced away from the next adjacent protrusion in all directions.
15. (Original) A microedged-shaving surface as defined by claim 11 wherein said substrate, said plurality of protrusions, and said microedged shaving elements are polymeric.
16. (Original) A microedged-shaving surface as defined by claim 15 wherein said substrate, said plurality of protrusions, and said microedged shaving elements are formed from polyimide.
17. (Original) A microedged shaving surface as defined by claim 15 wherein said plurality of said microedged shaving elements are coated with a metallic material.
18. (Original) A microedged shaving surface as defined by claim 17 wherein said metallic material is tungsten.
19. (Cancelled).